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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/610,284	07/06/2000	Herbert Bachler	32794	5343

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EXAMINER

DABNEY, PHYLESHA LARVINIA

ART UNIT	PAPER NUMBER
2643	19

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/610,284

Applicant(s)

BACHLER ET AL

Examiner

Phylesha L Dabney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/17/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

This action is in response to the amendment filed on 17 November 2003 in which claims 1-11 are pending.

Arrangement of the Specification

1. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims **12-15, 17, and 24-27** are rejected under 35 U.S.C. 102(e) as being anticipated by Weinfurtner (U.S. Patent No. 6,005,954).

Regarding claims **12** and **15**, Weinfurtner discloses a hearing aid comprising a central, digital signal processing unit (10); self-contained peripherals (14, 16, 20); an identification unit (18, 32) in at least one of the peripheral self-contained hardware units; a storage unit (42); a comparing unit (30); and a memory unit (34).

Regarding claim **13**, Weinfurtner discloses the comparator (20, 30 via signal 26) is connected to the operations-selecting input (col. 3 lines 55-60) of the digital signal processing unit. Also, see the drawing objection above

Regarding claim **14**, Weinfurtner discloses at least one bus and interfaces implement the connection (fig. 13, the transfer line between the memory and multiple calculation modules) between peripherals and the signal processing unit.

Regarding claim **17**, see the rejection of claims **12** and **14**.

Regarding claims **24-27**, see the rejection of claims **12-15**as pertaining to the method of claims **24-27**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinfurtner (U.S. Patent No. 6,005,954).

Regarding claim 16, Weinfurtner does not teach the interfaces including three-wire and/or two-wire interfaces. However, the examiner takes official notice that it is known in the art to use two-wire or three-wire interfaces (integrated circuits, ICs) to allow multiple peripherals the ability to transmit and receive information via an integrated circuit as opposed to multiple wiring structures. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use two-wire and/or three-wire interfaces to simplify the wiring structure of the hearing aid.

Regarding claims 18-19, see rejection of claims 12 and 16.

Regarding claims 20-21, Weinfurtner does not teach using the audio signal components in the form of peripherals connected through a first bus and first interfaces to the signal processing unit and control components in the form of peripherals connected through a second bus and second interfaces to the signal processing unit, the first interfaces preferably being at least three-wire interfaces, the second interfaces preferably being at least two-wire interfaces, the former preferably being based on I²S interfaces and the latter preferably being based on I²C interfaces. However, the examiner takes official notice that it is known in the art to use two-wire

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or three-wire interfaces (integrated circuits, ICs) to allow multiple peripherals the ability to transmit and receive information via an integrated circuit as opposed to multiple wiring structures. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use two-wire and/or three-wire interfaces to simplify the wiring structure of the hearing aid. Furthermore, it would have been obvious to one of ordinary skill in the art to use two-wire interface connected to the control components for transmitting one line of data (one transmit/receiver signal) plus one clock line and three-wire interfaces connected to the audio components for transmitting two lines of data plus one clock line (such as a left and right audio signal) plus one clock line. Therefore, it would have been obvious to one of ordinary skill in the art to use multiple type of integrate circuit interfaces in the invention of Weinfurtner for transmitting and/or receiving different type of signals and simplifying the wiring structure.

3. Claim **22-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinfurtner (U.S. Patent No. 6,005,954), in view of Weinfurtner (U.S. Patent No. 5,604,812).

Regarding claims **22-23**, Weinfurtner does not teach the output (36) is in the form of a transceiver. Weinfurtner '812 teaches using a transceiver (22, col. 5 lines 33-44) for transmitting and receiving configuration data from a remote device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a transceiver output in the invention of Weinfurtner, as taught by Weinfurtner '812 to transceiver data from a remote device.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

With respect to the applicant's argument that patent '954 does not teach "an *identification unit* in at least one of the peripheral *self-contained hardware units*, the identification unit having an output and containing identification information of the at least one peripheral self-contained hardware unit. The examiner disagrees with this statement because the Weinfurtner reference (col. 8 lines 23-59) states that the identification unit (32) stores the data of hardware unit (30) which receives a portion of its calculation data as configuration data received for the memory module (34). In addition, the examiner would like to point out that a module is an independent assembly of electronic components (<http://www.dictionary.com>, "module", © 27 October 1997; see attached pages.)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L Dabney whose telephone number is 703-306-5415. The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-87 2-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314, for formal communications intended for entry and for informal or draft communications, please label "Proposed" or "Draft" when submitting an informal amendment.


(703) 306-0377, for customer service questions.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

PLD



January 31, 2004



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